RESULTS MANAGEMENT SYSTEM FOR THE FACULTY OF SCIENCE OF THE UNIVERSITY OF PERADENIYA

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The Student Results Analysis Process is in fact the most important process that is carried out in any university system. It comprises of many processes that generally deals with assessing the performance of students, determining the ability of a student and thereby guiding him/her to attain success in his/her academic carrier. The problem that I have addressed for my M.Sc. research project is the Results Analysis Process at the Faculty of Science of the University of Peradeniya. The faculty offers number of degree programmes that the students follow which consist of different courses corresponding to the subject/degree programme. At the end of each academic year the grades obtained for each course by the student need to be analyzed and GPA should be calculated. Then by analyzing the results obtained by each student, the important decisions regarding the student's performance need to be carried out. The students who have completed their final year should be checked on whether they have fulfilled the requirements to obtain a particular degree programme to decide on pass or fail, award of honours for students who have done exceptionally well and printing of transcripts of students. Moreover, it is necessary to check for the minimum requirements in the selection process of students for Special and Applied Sciences degree programmes.

In this project, I propose a software system to assist the lecturers and the other staff in this very important and time consuming process of analyzing and managing the results of students. The results obtained for each course are entered to the system and then all the calculations are performed. Then the system is used to check specified requirements of each degree programme. First, a set of general criteria used in the checking was identified and they were stored in the database as statements. The required criteria for each degree presently available in the faculty were retrieved and minimum or maximum values were assigned for each criterion that specifies a boundary. Moreover, this is applicable for any new degree introduced to the system. At the end, a set of criteria for each degree with specific values was saved back to the database and when ever needed they were retrieved and their values can be compared with the values obtained by a student. Finally, the system displays whether the student has fulfilled the requirements.

The results analysis ability of the system was tested using different test cases and they produced the expected results.